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Kitchen waste as pig feed sustains transmission of *Taenia solium* cysticercosis in Mbeya, Tanzania

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Background

- Recent data have shown that confinement of pigs can be insufficient in preventing transmission of porcine cysticercosis, indicating that pigs might become infected while being confined [1].

Hypothesis

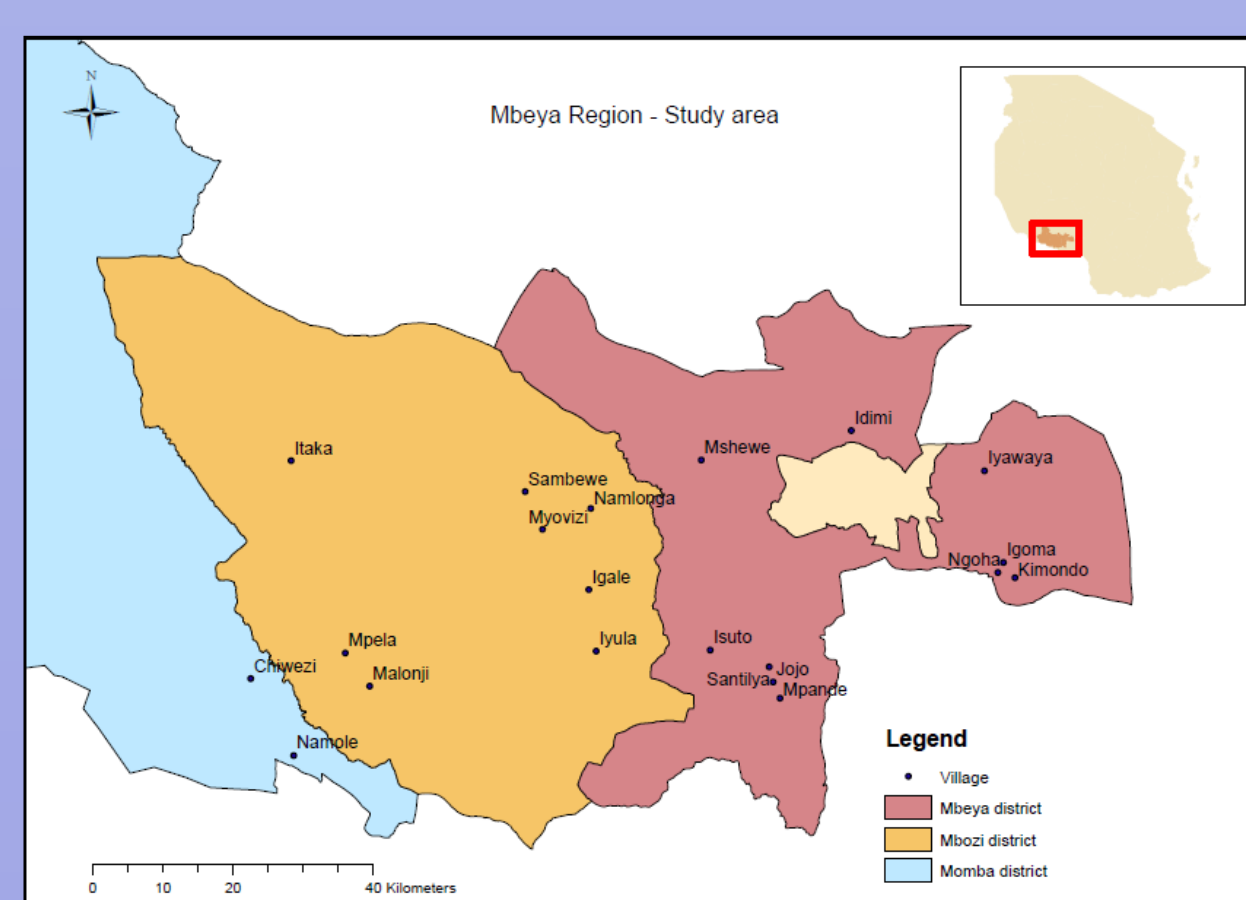
- Pigs are infected with porcine cysticercosis through environmental contamination while being confined.

Aim

- To identify risk factors associated with porcine cysticercosis using a case-control study design.

Methods

- Case-control study design consisting of questionnaire interviews and observational surveys, utilising known information on persistent or multiple infections of porcine cysticercosis in an endemic area of Tanzania [1].
- Households were allocated to either the case or control group based on at least two visits during a 14-month period.
- Cases had one or more cysticercosis positive pigs on at least two occasions whereas controls had none.
- Risk factors were identified by logistic regression analyses.

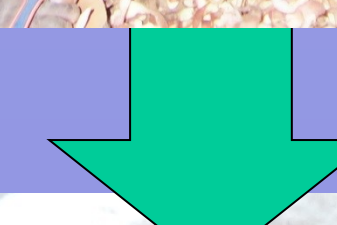
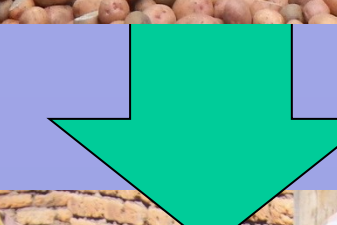
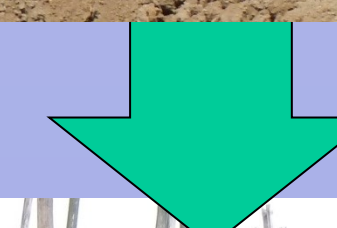


Results

- From 20 villages a total of 93 households participated - 43 cases and 50 controls.
- Potato peels were said to be given to pigs either raw or boiled by 46% of the farmers.
- Porcine cysticercosis could be associated with absence or a completely open latrine ($p=0.035$, OR 5.98, CI: 1.33- 43.02) compared to an enclosed latrine and feeding potato peels to pigs ($P=0.007$, OR 3.45, CI: 1.43-8.79).

Take home messages

- Whether potato peels are contaminated with *Taenia* eggs before they reach the household or whether the contamination is from water or dirty hands during peeling, remains to be confirmed.**
- This study suggests that detailed assessment of a number of areas of pig management is essential for designing effective control programmes.**



Acknowledgements

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References

1. Braae, U.C., Magnussen, P., Lekule, F., Harrison, W., Johansen, M.V., 2014. Temporal fluctuations in the sero-prevalence of *Taenia solium* cysticercosis in pigs in Mbeya Region, Tanzania. *Parasit. Vectors.* 7, 574.

This study has been accepted for publication in *Veterinary Parasitology* and is available here:

